

***Response to Amendment***

Amendment received on 04/21/2008 is acknowledged and entered. Rule 130, 131 or 132 Affidavits of 04/21/2008 have been acknowledged and entered. Claim 2 has been canceled. Claims 21 and 22 have been amended. Claims 1 and 3-25 are currently pending in the application.

**EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a personal interview with an applicant's representative George M. Medwick (Reg. No. 27,456) on Wednesday, July 30, 2008.

The application has been amended as follows:

**IN THE CLAIMS**

1. (Currently amended) A computer-readable machine-readable storage medium having containing a set of instructions stored therein, which when executed by the computer for causing causes the computer a computing device to perform execute a method for calculating to calculate an economic value created by a manufacturing process for manufacturing products produced in a plurality of production units 1, 2, . . . , m, . . . , n-1, and n,

the production units respectively consuming ingredient materials Y<sub>1</sub>, Y<sub>2</sub>, . . . , Y<sub>m</sub> , . . . , Y<sub>n-1</sub>, Y<sub>n</sub>, and respectively producing products X<sub>1</sub>, X<sub>2</sub>, . . . , X<sub>m</sub> . . . , X<sub>n-1</sub>, X<sub>n</sub>,

wherein a product  $X_m$  produced in a production unit  $m$  can flow as an ingredient material  $Y_{m+1}$  to a subsequent production unit  $m+1$ , or can flow as an ingredient material  $Y_1, Y_2, \dots, Y_{m-1}$  to one or more previous production units  $1, 2, \dots, m-1$ ,

said method comprising the steps of:

a) calculating an aggregate cost of manufacture of each product manufactured by:

i) collecting cost data from diverse sources into a relational database, the cost data collected by the steps of:

- 1) collecting utility and ingredient materials cost for each product;
- 2) assembling cost data for each production unit;
- 3) assembling productivity, composition and packaging data for each product;
- 4) collecting manufacturing volume by product for each production unit;
- 5) establishing a production mix and an ingredients list for each production unit by apportioning the product  $X_m$  produced by each production unit  $m$  as ingredient materials ingredients  $Y$  to each of the other previous production units  $1, 2, \dots, m-1$ , and a subsequent production unit  $m+1$  to establish a production mix;

b) establishing a predetermined threshold for the difference between a previous cost of an ingredient material  $Y$  the entered or previously calculated ingredient cost and the aggregate cost of manufacture of a product  $X$  that is used as an ingredient material  $Y$ ;

c) upon receiving if a cost change occurs that affects the aggregate cost of manufacture of the product  $X$ , then comparing the cost of ingredients ingredient materials  $Y$  of the ingredients list for all production units to the aggregate cost of manufacture of for each product  $X$  that is used as an ingredient material  $Y$  to determine each affected ingredient material  $Y$ ;

d) using the production mix for each production unit  $m$ , recalculating the calculating an aggregate cost of manufacture of each product  $X_m$  based upon the production mix entered for each production unit  $m$ ;

e) for each affected ingredient material  $Y$  that is used by a production unit to manufacture a product  $X$ , calculating a difference between the previous cost of the entered or previously calculated ingredient material  $Y$  ects and the aggregate cost of manufacture of the product  $X$

that is used as an ingredient material Y , the fixed cost and the variable cost being calculated independently of each other;

f) if the difference between the previous cost of the ~~entered or previously calculated~~ ingredient material Y ~~cost~~ and the recalculated aggregate cost of manufacture of the product X exceeds the predetermined threshold, then replacing the previous ingredient cost with the recalculated aggregate cost of manufacture of the product X;

g) recalculating all aggregate costs ~~cost~~ of manufacture ~~values~~ for all affected products; and

h) if the difference between the previous cost of the all entered or previously calculated ingredient material Y costs and the recalculated aggregate cost costs of manufacture of the product X exceeds the predetermined threshold, then repeating steps f) and g) until the difference is less than or equal to the predetermined threshold;

i) selecting at least one parameter ~~one or more parameters~~, the at least one parameter ~~parameters~~ comprising a customer, a sales region, a product grade ~~or~~ and a market segment;

j) calculating a sales volume and a net price related to the at least one parameter ~~one or more parameters~~;

k) using results of steps g) and j), calculating a manufacturing contribution related to the at least one parameter ~~one or more parameters~~;

l) using results of step k), calculating an after tax operating income related to the at least one parameter ~~one or more parameters~~; and

m) using the results calculations of steps a) through l), calculating an economic value ~~added~~ for the at least one parameter ~~one or more parameters~~, thereby determining the economic value created by the manufacturing process.

2. (Previously canceled)

3. (Currently amended) The computer-readable machine-readable storage medium of claim 1 wherein the collection step a) i) is accomplished by loading the data into predetermined fields in a relational database system.

4. (Currently amended) The ~~computer-readable machine-readable~~ storage medium of claim 3 wherein the collection step a) i) further comprises, before the loading step, the step of accumulating data in one or more spreadsheets.

5. (Currently amended) The ~~computer-readable machine-readable~~ storage medium of claim 1 [[ , ]] further comprising, after each collection step, the step of generating a discrepancy report by determining if data required for a subsequent calculation is missing and analyzing the data against predetermined criteria for discrepancies or possible out of normal range values.

6. (Currently amended) The ~~computer-readable machine-readable~~ storage medium of claim 1 wherein the calculation steps a), d), g), j), k), l), and m) are performed by:

- 1) accessing the data in the predetermined fields of the relational database system;
- 2) applying predetermined equations to the data; and
- 3) storing the results in predetermined results fields in the relational database system.

7. (Currently amended) The ~~computer-readable machine-readable~~ storage medium of claim 6 [[ , ]] further comprising, before each calculation step, the step of generating a discrepancy report by determining if data required for a subsequent calculation is missing and analyzing the data against predetermined criteria for discrepancies or possible out of normal range values.

8. (Currently amended) The ~~computer-readable machine-readable~~ storage medium of claim 6 further comprising displaying the results in a graphical format, the graphical format being user selectable from a plurality of graphical formats by:

- 4) defining each graphical format to have predetermined input parameters;
- 5) accessing the predetermined results fields of the relational database that correspond to the input parameters.

9. (Currently amended) The computer-readable machine-readable storage medium of claim 8 wherein the predetermined results fields are loaded into a spreadsheet and then into a pivot table to display the results.

10. (Currently amended) The computer-readable machine-readable storage medium of claim 8 wherein the graphical format is a numeric table, comprising a pivot table.

11. (Currently amended) The computer-readable machine-readable storage medium of claim 8 wherein the graphical format is a waterfall chart.

12. (Currently amended) The computer-readable machine-readable storage medium of claim 8 wherein the graphical format is a bar chart.

13. (Currently amended) The computer-readable machine-readable storage medium of claim 8 wherein the graphical format is a line graph.

14. (Currently amended) The computer-readable machine-readable storage medium of claim 1 [[ , ]] wherein costs across families of products are distributed based upon shared use of manufacturing assets.

15. (Currently amended) The computer-readable machine-readable storage medium of claim 14 [[ , ]] wherein the shared use of assets is determined by the fraction of time a product family occupies each asset.

16. (Currently amended) The computer-readable machine-readable storage medium of claim 14 [[ , ]] wherein the shared use of assets is determined by the volume fraction of a product family flowing through each asset.

17. (Currently amended) The ~~computer-readable machine-readable~~ storage medium of claim 14 [[,]] wherein unexpected costs are allocated over all the products manufactured according to predetermined criteria.

18. (Currently amended) The ~~computer-readable machine-readable~~ storage medium of claim 1 [[,]] further comprising, before each calculation step, a step of generating a discrepancy report by determining if data required for each calculation is missing and analyzing the data against predetermined criteria for discrepancies or possible out of normal range values.

19. (Currently amended) The ~~computer-readable machine-readable~~ storage medium of claim 18 [[,]] further comprising a step of terminating the calculation if the discrepancy report indicates missing data or data containing discrepancies.

20. (Currently amended) The ~~computer-readable machine-readable~~ storage medium of claim 1 [[,]] wherein the step a) of calculating the ~~an~~ aggregate cost of manufacture of a product ~~manufacture or acquisition activity~~ further comprises the step of :

ii) reconciling the aggregate cost of manufacture of an internally produced product ~~grade~~ with a ~~the~~ raw materials list.

21. (Currently amended) The ~~computer-readable machine-readable~~ storage medium of claim 20 [[,]] wherein the reconciling step comprises the steps of:

1) if ~~upon receiving~~ a cost change is received that affects ~~can affect~~ the aggregate cost of manufacture, then comparing the ingredients list ~~Ingredients List~~ for all production units to the aggregate cost of manufacture of ~~for~~ each product to determine each affected ingredient, where the aggregate cost of manufacture is ~~an aggregated value~~ based upon the production mix entered;

2) for each affected ingredient that is used to manufacture a product ~~grade~~, calculating the difference between a previous ~~an existing (entered or previously calculated)~~ ingredient cost and the aggregate cost of manufacture, where the fixed cost and the variable cost ~~are~~ is calculated independently of each other;

- 3) if the difference between the previous ~~existing~~ ingredient cost and the aggregate cost of manufacture exceeds a predetermined threshold, then updating the ingredient cost with the aggregate cost of manufacture;
- 4) recalculating ~~initiating a recalculation of~~ all cost of manufacture values for all affected products ~~grades~~ ;
- 5) repeating steps 1) through 4) until the difference between the previous ~~entered~~ ingredient cost and the aggregate cost of manufacture is less than or equal to the predetermined threshold or until a predetermined number of repetitions has been reached.

22. (Cancelled)

23. (Currently amended) The computer-readable ~~machine-readable~~ storage medium of claim 1 [[ , ]] wherein the computer utilizes ~~computing device utilizing~~ a plurality of electronic spreadsheets and a relational database, the spreadsheets being used for the collection of data and the display of results, the relational database being used to receive the data from the spreadsheets, to calculate results in accordance with predetermined equations and to store the results in predefined data structures.

24. (Cancelled)

25. (Currently amended) The computer-readable ~~machine-readable~~ storage medium of claim 1 [[ , ]] further comprising, after step b):

b1) establishing a maximum number of repetitions to stop the iterative process in case an erroneous value is entered or a calculation error occurs; and further comprising, after step g):

g1) stopping the repetition of steps f) and g) if the maximum number of repetitions is reached before the difference between all previous ~~entered or previously calculated~~

ingredient costs and the aggregate costs of manufacture is less than or equal to the predetermined threshold.

The following is an examiner's statement of reasons for allowance:

**Allowable Subject Matter**

Claims 1, 3-21, 23 and 25 are allowed.

The following is an examiner's statement of reasons for allowance:

As per independent claim 1, the best prior art, Rachlin et al. (Accounting and Financial Fundamentals for Nonfinancial Executives; American Management Association, 1996), teaches a method of computing an economic value created by a particular business activity, comprising the steps of: a) calculating an aggregate cost of a product manufacture or acquisition activity; b) selecting one or more parameters, the parameters comprising a customer, a sales region, a product grade and a market segment; c) calculating a sales volume and a net price related to the one or more parameters; d) calculating a manufacturing contribution related to the one or more parameters; e) calculating an after tax operating income related to the one or more parameters; f) calculating an economic value added for the one or more parameters, thereby determining the economic value created by the particular business activity.

However, Rachlin et al. fails to teach or fairly suggest recalculating aggregate parameters as specifically as recited in method steps a) through h) in claim 1.

The best domestic prior art, Shulman (US 2003/0018503 A1), while teaching monitoring the profitability of a manufacturing plant comprising the steps of storing system setup data in a database, receiving input data associated with multiple time periods from at least one data source, calculating profitability measures from the system setup data and input data, and outputting the profitability measures to a user, wherein projected performance measures associated with one or more proposed changes in production period are calculated, and wherein at least one of said projected performance measures and net incremental revenue are recalculated based on the changes to incremental conversion costs as determined by the input received in the input step, fails to teach or fairly suggest recalculating aggregate parameters as specifically as recited in method steps a) through h) in claim 1.

The best foreign prior art, Grossi et al. (EP 1304643 A1), while teaching evaluating the economic value added of individual orders developable by an aggregated economic entity, fails to teach or fairly suggest recalculating aggregate parameters as specifically as recited in method steps a) through h) in claim 1.

The remaining dependent claims are considered allowable, as they are dependent and based off of an allowable independent claims.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submission should be clearly labeled “Comments on Statement of Reason for Allowance”.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Igor Borissov whose telephone number is 571-272-6801. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W. Hayes can be reached on 571-272-6708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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